

# **Audit**



# **Report**

OFFICE OF THE INSPECTOR GENERAL

**DEFENSE LOGISTICS AGENCY  
VALUE ENGINEERING PROGRAM**

Report No. 97-003

October 9, 1996

**Department of Defense**

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### **Acronyms**

DCMAO	Defense Contract Management Area Office
DCMC	Defense Contract Management Command
DFARS	Defense Federal Acquisition Regulation Supplement
DGSC	Defense General Supply Center
DISC	Defense Industrial Supply Center
DLA	Defense Logistics Agency
DPRO	Defense Plant Representative Office
DPSC	Defense Personnel Support Center
FAR	Federal Acquisition Regulation
GAO	General Accounting Office
MAIS	Major Automated Information System
MC	Management Control
MDAPS	Major Defense Acquisition Programs
OMB	Office of Management and Budget
ROI	Return on Investment
SAVE	Savings Thru Value Enhancement Program
VE	Value Engineering
VECP	Value Engineering Change Proposal
VEP	Value Engineering Proposal

## Office of the Inspector General, DoD

**Report No. 97-003**  
(Project No. 5CH-5038)

**October 9, 1996**

### **The Defense Logistics Agency Value Engineering Program**

#### **Executive Summary**

**Introduction.** This is the first of three reports to be issued by the Office of the Inspector General, DoD, from an audit of the DoD Value Engineering (VE) Program requested by the Office of the Under Secretary of Defense for Acquisition and Technology. The Office of the Inspector General, DoD, and the Army and Air Force Audit Agencies plan to issue 12 reports as a result of the audit. Office of Management and Budget (OMB) Circular No. A-131, "Value Engineering," May 21, 1993, requires Federal agencies to use VE as a management tool, where appropriate, to ensure realistic budgets, identify and remove nonessential capital and operating costs, and improve and maintain optimum quality of program and acquisition functions. The DoD VE Program involves both in-house and contractor programs. For FY 1994, the DoD claimed VE savings of \$855 million and investment costs of \$248 million and for FY 1995, VE savings of \$734 million and investment costs of \$43.9 million. The DLA portions of the reported savings and costs were \$111.9 million and \$6.7 million, respectively for FY 1994 and \$105.5 million and \$6.5 million, respectively for FY 1995. This report addresses the DLA VE Program and the \$56.8 million of VE savings and \$3.7 million of VE costs reported by three of five DLA buying centers: the Defense General Supply Center, the Defense Industrial Supply Center, and the Defense Personnel Support Center (DPSC). The report also discusses efforts by the Defense Contract Management Command (DCMC) to promote and administer VE efforts by Defense contractors.

**Audit Objectives.** The audit objectives were to determine whether DoD VE policies, procedures, and implementation of the revised OMB Circular No. A-131 were adequate and whether agency-reported VE savings were valid. We also assessed how extensively the VE Program was included in contracts, whether contractors believed they were encouraged to participate in the VE Program, and how VE related to other streamlining or savings initiatives. We also evaluated the adequacy of the management control program applicable to the stated objectives.

**Audit Results.** The three DLA buying centers included savings derived from other cost-reduction initiatives in reported VE savings. Reported savings for both the VE and the other cost-reduction initiatives were inaccurate and did not include all investment costs associated with the generation of the savings. As a result, reported VE savings amounting to \$19 million for the three buying centers reviewed were overstated by \$17.7 million: \$15.7 million was due to including savings from competition and other non-VE initiatives and \$2 million was due to computing inaccuracies and insufficient documentation. Also, the overall effectiveness of the DLA VE and other cost-reduction efforts was not readily discernible (Finding A).

DLA could better motivate contractors to submit value engineering change proposals (VECPs). The DCMC did not consistently promote and monitor contractor

participation in the DoD VE Program and did not report any VE accomplishments during FY 1994. Also, the DPSC did not always include the required VE incentive clause in contracts. As a result, eligible contractors were not participating in the VE Program and DCMC had no assurance that DoD acquisition costs were reduced as much as possible through the use of VE (Finding B).

We identified management control weaknesses in DLA computing and reporting of VE savings. Recommendations in this report, if implemented, will ensure that savings from VE or other cost-reduction techniques are appropriately reported and that DoD acquisition and program costs are reduced by the maximum extent possible. However, we could not determine the amount of potential monetary benefits because the amount depends on the number of VE actions initiated and the amount of VE savings that are realized from those initiated VE actions. See Part I for a discussion of the audit results.

**Summary of Recommendations.** We recommend that the Under Secretary of Defense for Acquisition and Technology and the Director, DLA, issue clarifying guidance on the use, reporting, and monitoring of VE savings and costs. We recommend the Commander, DCMC, instruct contract administration offices to review contracts for required VE clauses, to assist contractors and program officials in processing VECs, and to report VEC statistics to Military Department and DoD VE managers for their use in ensuring accurate information is reported to the OMB. We recommend that the Commander, DPSC, instruct contracting officers to include required VE clauses in contracts.

**Management Comments.** We received comments on a draft of this report from DLA. We did not receive comments from the Under Secretary of Defense for Acquisition and Technology. The DLA nonconcurred with the recommendation to revise guidance in DLA Regulation 4140.21, "DLA Value Engineering Program," August 30, 1993, to define and differentiate VE from other cost-reduction initiatives. DLA stated the auditors narrowly interpreted VE and that DLA was maximizing the VE Program return on investment. DLA agreed to develop a cost factor to identify indirect costs related to its VE program. DLA agreed to issue a memorandum to all DCMC elements emphasizing the importance of VE and instructing them to adhere to DLA Directive 5000.4, "Contract Management," and agreed to provide appropriate VE statistical data to the Military Departments and the DoD VE program managers. DLA nonconcurred with the recommendation to include VE clauses in contracts but stated a reminder was issued to procurement officials in DPSC Clothing and Textiles Directorate to include the required VE clause. See Part I for a discussion of management comments and Part III for the complete text of management comments.

**Audit Response.** We continue to believe that DLA should revise DLA Regulation 4140.21 to differentiate VE from other cost-reduction initiatives. We recognize that this action should be taken in concert with the Military Departments and the Office of the Under Secretary of Defense for Acquisition and Technology. DLA actions to emphasize VE to DCMC and to provide VE statistical data are responsive, and no further action is needed. DLA actions to develop a cost factor to capture indirect VE costs and to remind procurement officials to include VE clauses in contracts were partially responsive to the recommendations. For the reasons discussed in Part I, we maintain that the recommended actions are needed. Therefore, we request that the Under Secretary of Defense for Acquisition and Technology and DLA provide comments on the unresolved recommendations by December 9, 1996.

# Table of Contents

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<b>Executive Summary</b>	i
<b>Part I - Audit Results</b>	
Audit Background	2
Audit Objectives	3
Finding A. Validity of Reported Savings and Costs	4
Finding B. Contractor Participation in DoD Value Engineering Program	16
<b>Part II - Additional Information</b>	
Appendix A. Scope and Methodology	
Scope	24
Methodology	25
Management Control Program	25
Appendix B. Summary of Prior Audits and Other Reviews	27
Appendix C. Summary of Defense Logistics Agency Reported Value Engineering Savings for FY 1994 and Value Engineering Savings Reviewed	29
Appendix D. Value Engineering Techniques	30
Appendix E. Organizations Visited or Contacted	32
Appendix F. Report Distribution	34
<b>Part III - Management Comments</b>	
Defense Logistics Agency Comments	38

## **Part I - Audit Results**

### Audit Background

**Audit Request.** The audit was requested by the Office of the Under Secretary of Defense for Acquisition and Technology, in accordance with the requirement in Office of Management and Budget (OMB) Circular No. A-131, "Value Engineering," May 21, 1993, that Agency heads request Inspectors General to audit agency value engineering (VE) programs 2 years after issuance of the Circular. A total of 12 audit reports by the Army and Air Force Audit Agencies and the Inspector General, DoD, are planned: three on the Army, one on the Navy, two on the Air Force, one on the DLA, and a summary Defense-wide report.

This report addresses the DLA VE Program. The report discusses VE Program savings and costs reported by three DLA buying centers: the Defense General Supply Center (DGSC), the Defense Industrial Supply Center (DISC), and the Defense Personnel Support Center (DPSC). The report also discusses efforts by the Defense Contract Management Command (DCMC) to promote VE efforts by Defense contractors.

**Policy on Use of Value Engineering.** The OMB Circular No. A-131 states that:

Federal agencies shall use VE as a management tool, where appropriate, to ensure realistic budgets, identify and remove nonessential capital operating costs, and improve and maintain optimum quality of program and acquisition functions. Senior management will establish and maintain VE programs, procedures and processes to provide for the aggressive, systemic development and maintenance of the most effective, efficient, and economical and environmentally-sound arrangement for conducting the work of agencies, and to provide a sound basis for identifying and reporting accomplishments.

OMB Circular A-131 is implemented through DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991, (reissued as DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996); the Federal Acquisition Regulation (FAR), Part 48, "Value Engineering," and the Defense Federal Acquisition Regulation Supplement (DFARS), Part 248, "Value Engineering." Implementing DLA guidance is in DLA Regulation 4140.21, "DLA Value Engineering Program," August 30, 1993, and DLA Directive 5000.4, "Contract Management," Part VI, Chapter 13, "Value Engineering."

**Statutory Requirement on Use of Value Engineering.** The National Defense Authorization Act for Fiscal Year 1996, "Conference Report," House Report 104-450, amended the Office of Federal Procurement Policy Act, Section 41, United States Code by adding Section 36, "Value Engineering." Section 36 states, "Each executive agency shall establish and maintain cost-effective value engineering procedures and processes."

**History and Definition of Value Engineering.** VE originated in industry largely as a result of material and labor shortages experienced during World War II. The initial successes in developing functional, less costly alternatives led to an analytical discipline that was structured to challenge the proposed or usual ways of doing things and to systematically search for improved and less costly alternatives. This structured approach came to be known as VE and is also referred to as value analysis, value management, or value improvement. DoD defines VE as a functional analysis methodology that identifies and selects the best value alternative for designs, materials, processes, systems, and program documentation.

**DoD Value Engineering Program.** The DoD VE Program has two distinct parts: an in-house part and a contractor portion. The in-house part relies on internal investment and manpower resources and benefits from all savings or cost avoidances generated and is implemented through VE proposals (VEPs). The contractor portion relies on contractor resources; savings are generally shared with the Government and VE actions are implemented through the contractor's submission of VE change proposals (VECPs).

During FY 1994, the DoD reported total VE savings of \$855 million and investment costs of \$248 million. DLA reported \$111.9 million in VE savings, of which \$110.6 million was due to in-house efforts, and \$1.3 million in contractor's submission of VECPs. DLA VE investment costs were \$6.7 million. Appendix C summarizes the VE savings reported by the DLA buying centers during FY 1994 and the VE savings reviewed during the audit.

## Audit Objectives

The audit objectives were to determine whether DoD VE policies, procedures, and implementation of the revised OMB Circular No. A-131 were adequate and whether DLA-reported VE savings were valid. We also assessed how extensively the VE Program was included in contracts, whether contractors believed they were encouraged to participate in the VE Program, and how VE related to other streamlining or savings initiatives. We also evaluated the adequacy of the management control program applicable to the stated objectives. See Appendix A for a discussion of the scope, methodology, and the management control program and Appendix B for a summary of prior coverage related to the audit objectives.



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## **Finding A. Validity of Reported Savings and Costs**

DLA reported savings and costs from non-VE cost-reduction initiatives as VE savings and investment costs. DLA also understated its costs related to VE and the other cost-reduction initiatives at the three buying centers we reviewed by an undeterminable amount. The reporting inaccuracies occurred because:

- o Under Secretary of Defense for Acquisition and Technology and DLA guidance did not clearly define VE or differentiate VE from other cost-reduction initiatives;

- o DLA guidelines did not provide for the accumulation of costs outside the VE offices at the buying centers; and

- o DLA managers at the three buying centers, DLA Headquarters, and the Office of the Assistant Secretary of Defense (Economic Security) did not thoroughly review the basis and the accuracy of calculations for savings claimed.

Of the 130 projects reviewed, with savings valued at \$19 million that DLA reported during FY 1994, 120 projects, valued at \$15.7 million, were based on competition and other non-VE cost-reduction initiatives. Of the \$3.3 million of savings reported for the 10 projects that were VE, \$2 million was either overstated or not supported by sufficient documentation. As a result, DLA overstated its VE savings for the three DLA buying centers reviewed and the overall effectiveness of the DLA VE Program was not readily discernible.

### **Value Engineering Program Included Other Savings Initiatives**

We reviewed a total of 130 projects with savings valued at \$19 million (50 for \$6.6 million at DGSC, 51 for \$4.6 million at DISC, and 29 for \$7.8 million at DPSC) that the Centers reported as VE in FY 1994. Of the 130 VE projects reviewed, 126 had in-house savings of \$18.1 million and 4 at DPSC had contractor savings of \$0.9 million. Of the \$19 million reviewed, we determined that 120 projects valued at \$15.7 million (82.7 percent) were non-VE cost-reduction initiatives, including competitive acquisitions and actions aimed at increasing competition, and other efficiency requirements related to inventory management, purchasing, and prior management decisions. The table summarizes the savings resulting from the different cost-reduction initiatives but reported as VE savings during FY 1994 for the three DLA buying centers reviewed.

## Finding A. Validity of Reported Savings and Costs

### Reported VE Savings Included Savings From Other Cost-Reduction Initiatives

(\$ in thousands)

	DGSC		DISC		DPSC		Total	
	<u>Projects</u>	<u>Reported Savings</u>	<u>Projects</u>	<u>Reported Savings</u>	<u>Projects</u>	<u>Reported Savings</u>	<u>Projects</u>	<u>Reported Savings</u>
Value Engineering	0	0	1	\$ 314	9	\$2,954	10	\$3,268
<u>Other Initiatives</u>								
Competition	44	\$4,124	40	3,544	0	0	84	7,668
Inventory Management	0	0	6	429	18	1,748	24	2,177
Purchasing	0	0	3	44	1	2,615	4	2,659
Prior Decisions and Other Actions	6	2,470	1	226	1	500	8	3,196
Subtotal	50	6,594	50	4,243	20	4,863	120	\$15,700
Total Reviewed	50	\$6,594	51	\$4,557	29	\$7,817	130	\$18,968

The cost-reduction initiatives and rationale for the categories for 130 VE projects listed in the table are discussed below.

**Value Engineering.** We determined that 10 projects valued at \$3.3 million were properly reportable as VE savings. However, as later discussed, the savings were not always accurately computed or supported with sufficient documentation. These projects included both in-house and contractor-generated savings. We considered in-house savings reportable as VE savings based on the following criteria.

- o The savings resulted from a study that was identified as a VE project before the presentation of a specific proposal for decision or submission of sufficient documented evidence of the application of the elements of the VE discipline, such as a functional analysis, an evaluation of worth, or cost comparisons. Appendix D describes the elements of the VE discipline.

- o The savings were not reportable under another cost-reduction initiative.

- o The savings were not the result of actions expected in the normal accomplishment of duties otherwise performed at the buying center.

We considered contractor savings reportable as VE savings based on the existence of a properly approved contractor-submitted VECP. Because the criteria for VE were so broadly defined, some projects that did not clearly fall in another cost-reduction initiative were accepted as VE.

**Competition.** We determined that 84 projects valued at \$7.7 million were actions involving competitive acquisitions. Savings in this category involved actions to obtain full and open competition or to determine the feasibility of purchasing parts directly from the actual manufacturer instead of from a major system supplier who assembled the parts into a system. Such actions included

## Finding A. Validity of Reported Savings and Costs

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identifying additional sources of supply and identifying and removing unnecessary constraints to competition, to include reverse engineering, price challenges, ensuring that the mission criticality of a part is properly coded in the supply system, or that technical specification for a part was available or could be developed. These functions have historically been performed or initiated by contracting office competition advocates under the requirements of FAR Subpart 6.5, "Competition Advocates," and under the DFARS Appendix E, "DoD Spare Parts Breakout Program."

**Inventory Management.** We determined that 24 projects valued at \$2.1 million were related to routine inventory management functions at the buying centers. These functions involved actions to identify and remove duplicate or obsolete spare parts from the supply system, actions to implement a direct vendor delivery system, and actions to identify alternatives for excess materials. Savings were based on reductions in the estimated costs of administering a line item of data in the supply system, on reductions in expected demand, on reductions in transportation and handling costs, and on estimated disposal costs.

**Purchasing.** We determined that four projects valued at \$2.7 million were actions that involved purchasing efficiencies. These actions included claiming savings from the consolidation of medical supply purchases by the Department of Veterans Affairs and DPSC and reducing the procurement lead times used to calculate future procurements. The decision to consolidate purchases was based on recommendations in General Accounting Office Report No. NSIAD-85-125, (OSD Case No. 6774), "Consolidating Procurements of Medical Equipment Could Save Money," August 27, 1985. Also, DPSC could not provide documentation to support the claimed savings of the consolidated purchases.

**Prior Decisions and Other Management Actions.** We identified eight projects valued at \$3.2 million that involved savings based on prior management decisions to purchase parts and from quality assurance efforts involving actions on a non-conforming part. The VE office only assisted in computing savings and in investigating the quality assurance deficiencies.

## Value Engineering Savings Computations

Of the \$3.3 million of savings reported for the 10 projects that were VE, savings of \$85,782 for one project were overstated by \$7,646 because of a computation error and savings of \$2 million for three projects were not supported by sufficient documentation.

**Computation Errors.** The claimed savings on one VE project at DPSC for \$85,782 were overstated by \$7,646 because the savings were computed using a wrong base price. The DPSC established the base price using an estimated procurement cost instead of using an actual price.

**Insufficient Documentation.** Claimed savings for one VE project at DISC for \$0.3 million and two VE projects at DPSC for \$1.7 million could not be verified because supporting documentation was not maintained and the bases for the savings could not be reconstructed.

### Investment Costs

DLA did not report all costs associated with the generation of reported VE savings. DLA only reported the costs incurred by each buying center's VE office. The buying centers excluded the costs of personnel who worked outside the VE offices. The costs reported for the three buying centers reviewed were \$1.63 million for DGSC, \$1.62 million for DISC, and \$0.5 million for DPSC. The buying centers recorded each savings transaction as direct or indirect based on the offices involved in developing and implementing the savings action. Buying centers data showed that \$30.64 million of the \$56.77 million of savings claimed were due to actions VE personnel performed. The remaining \$26.13 million of savings was attributed to actions personnel outside the VE office performed.

A measure of the effectiveness of VE efforts at each buying center is return on investment (ROI). The ROI is determined by dividing the reported savings generated by the VE function or activity by the cost of performing the VE function or activity. The ROIs reported during FY 1994 were 15.6 to 1 for DGSC, 13 to 1 for DISC, and 20.6 to 1 for DPSC. The high percentage of indirect savings reported without the related costs results in a material overstatement of reported ROIs at the buying centers.

### Value Engineering Implementing Guidance

DLA did not accurately report VE Program savings and costs because DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991, and DLA Regulation 4140.21, "DLA Value Engineering Program," August 30, 1993, did not clearly define VE or differentiate VE from other cost-reduction initiatives.

**OMB Circular No. A-131.** The revised Circular defines VE as an organized effort directed at analyzing the functions of systems, equipment, facilities, services, and supplies to achieve the essential functions at the lowest life-cycle cost. The Circular further states that VE can be used alone or with other management techniques and methodologies to improve operations and reduce costs. However, the Circular does not specify or provide criteria on how to differentiate VE from other cost-reduction programs.

## Finding A. Validity of Reported Savings and Costs

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**DoD Guidance.** DoD Instruction 5000.2 defined VE as a functional analysis methodology that identifies and selects the best value alternative for designs, materials, processes, systems, and program documentation. Reporting instructions for the FY 1994 annual VE report required by DoD Instruction 5000.2 stated that:

A study or project may be reported as an in-house value engineering study only if:

- a. It was identified as a value engineering project before presentation of [a] specific proposal for decisions, or
- b. Evidence of the application of elements of the value engineering discipline is available (such as functional analysis, evaluation of worth, [or] cost comparisons).

The VE discipline involves analyses and evaluations performed early in the VE process, which distinguish VE from other cost-reduction programs. Appendix D describes the elements of the VE discipline as presented in nonmandatory guidance in DoD 4245.8-H, "DoD Value Engineering Handbook," March 1986. The DoD Value Engineering Handbook also states that the DoD VE Program includes activities that do not necessarily use functional analysis techniques. For example, activities organized to support the DoD Component Breakout, Competition, and Spares Management initiatives may not use all elements of VE.

The DoD guidance indicates that VE involves formal, disciplined analyses, characterized by in-depth analysis of the functions, worth, and costs. However, the guidance also indicates that the mere up-front identification of a project as a VE study or project qualifies the study results for reporting under the VE Program without meeting any other formal tests for analytical rigor. While the DoD Value Engineering Handbook appears to waive the functional analysis requirements for applying VE in support of DoD Component Breakout, Competition, and Spares Management initiatives, no documented rationale supports why a functional analysis is not needed for those initiatives. Also, the DoD Value Engineering Handbook does not address the reporting of savings under those initiatives.

DoD Instruction 5000.2 was replaced by DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996, which contains less guidance. Additional guidance will be published in a Defense Acquisition Deskbook containing discretionary guidance on VE. Our review of the draft VE guidelines for the Defense Acquisition Deskbook concluded that those guidelines also do not clearly differentiate between VE and other cost-reduction initiatives or ensure that VE will be appropriately applied and the results consistently reported.

**DoD Value Engineering Strategic Plan.** In a December 10, 1993, memorandum to the Secretaries of the Military Departments and Directors of Defense Agencies, the Under Secretary of Defense for Acquisition and Technology emphasized the importance of DoD VE efforts and established a

## Finding A. Validity of Reported Savings and Costs

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VE Program Executive Steering Group. The Steering Group consists of Senior Executive Service and Flag-rank representatives for each Military Department and Defense agency and is tasked to develop a comprehensive, coordinated, and realistic DoD VE Program that reflects the policies and requirements outlined by OMB Circular A-131. On August 13, 1996, the Under Secretary of Defense for Acquisition and Technology (USD[A&T]) approved the FY 1996-1997 DoD VE Strategic Plan, which establishes goals and objectives for the DoD VE Program. Implementation of the plan is the responsibility of the DoD VE Quality Management Board (QMB), which consists of the VE Program Managers for OSD, the Military Departments, and the Defense Agencies and is the working arm of the Steering Group. The actual implementation is to occur at the individual program, project, and procurement manager level with those managers determining the VE application approach to be used in their area of authority. The determinations on VE approach are to be documented in the implementing managers' acquisition, project, or procurement plan and submitted to their designated decision authority for review and approval.

The Strategic Plan does not specify how VE will be integrated or coordinated with other cost-reduction programs such as the DoD Spare Parts Breakout Program. Also, the Strategic Plan does not sufficiently detail criteria to use in identifying projects for VE or for computing savings and associated costs. The Strategic Plan does not clarify the intent of or provide for consistent reporting under existing OMB and DoD VE guidance. Also, it is doubtful that the plans goal to develop consistent

**DLA Guidance.** DLA Regulation 4140.21 implemented the requirements of DoD Instruction 5000.2. The Regulation defines VE as a systematic function analysis leading to actions or recommendations to improve the value of systems, equipment, facilities, services, and supplies. It provides for the development and reporting of VE savings by DLA or DoD organizations outside the established VE office provided the project meets one of the three major elements of the VE discipline: cost analysis, function analysis, and evaluation of worth. The Regulation provides that the outside effort should be beyond normal duties of the person recommending the study. Further, the Regulation requires a VE program manager at each buying center to coordinate with organizational elements responsible for other established programs, to include those programs to improve reliability, quality assurance, standardization, maintainability, and competitive acquisition.

The DLA Regulation does not provide guidance on how or when the three major elements of the VE discipline should be used. Also, the Regulation does not explain the purposes or nature of coordination efforts between VE and other program activities. Under the existing procedures, almost any savings or cost-reduction initiative could be interpreted to be reportable under VE.

## Finding A. Validity of Reported Savings and Costs

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### Other DLA Cost-Reduction Initiatives

DLA guidance did not differentiate between savings from VE and savings from the DoD Spare Parts Breakout Program. The DoD Spare Parts Breakout Program has existed for more than 30 years and is currently authorized under DFARS 201.301, "Policy." The purpose of the program is to reduce the cost of spare parts by competitively purchasing spare parts where feasible or by purchasing spare parts directly from the actual manufacturer. DFARS Appendix E-502, "Reporting Procedures," requires a semi annual Spare Parts Breakout Screening Report and a Spare Parts Acquisition Report. Together these reports identify the number of different parts reviewed during a period, the actual savings or cost avoidances realized, and the costs incurred for the period. At the DLA buying centers, similar actions were also identified and reported as VE savings. Whether savings were reported as VE or as breakout depended on who identified the action. If identified by the Breakout Office, savings were reported under the Breakout Program; if identified by the VE office or another office, the savings would be reported under the VE Program.

**Inflated Savings.** Using the VE Program methodology for computing savings resulted in the reporting of greater savings than under the DoD Spare Parts Breakout methodology for the same transaction. Savings or cost avoidances were computed under the VE Program by establishing a base unit price, which was then compared to the unit prices for all buys made during a 3-year period beginning with the date of the first buy. Savings for each buy would equal the base unit price less the current contract unit price times the number of units purchased. Under the Breakout Program, savings were reported in accordance with DFARS Appendix E-502, paragraph (b), "Spare Parts Acquisition Report," which states:

Price differentials should be measured on each acquisition where a breakout action has taken place. They [price differentials] should equal the difference between the previous contract unit price and the current contract unit price, times the number of units purchased.

For example, in FY 1994, DGSC claimed VE savings of \$41,352 on contract DLA440-93-F-0809, based on a January 3, 1994, purchase of 1,200 items at a unit cost of \$89.25 that originated from a reverse engineering project. Reverse engineering is a technique used under the DoD Spare Parts Breakout Program to increase competition by making item specifications available to potential suppliers. The VE savings were computed using a base price established from General Services Administration Schedule GS07F19462, dated September 1989. Under the DoD Spare Parts Breakout Program, no savings would have been claimed because the unit cost on the buy made in December 1993 was for the same unit cost of \$89.25 used to compute the \$41,352 of claimed VE savings.

**Savings Thru Value Enhancement Program.** The Savings Thru Value Enhancement Program (SAVE) is a DLA cost-reduction initiative aimed at reducing the cost of spare parts to DLA and its customers. The SAVE Program is intended to maximize return on investment by increasing savings in existing programs, including VE, spare parts breakout, and reliability and maintainability. A major effort under the SAVE Program is to expand the use

## Finding A. Validity of Reported Savings and Costs

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of Military Departments and contractor resources. In December 1995, DGSC awarded a fixed-price contract with a ceiling of \$3 million. The contract provides for replenishment parts breakout, reverse engineering, VE, and general engineering services. Headquarters, DLA, officials responsible for administering the SAVE, VE, and other DLA cost-reduction programs stated that savings derived through the contractors efforts will be reported separately under the SAVE Program even though similar savings are already reported under one or more existing initiatives, to include the VE Program and the DoD Spare Parts Breakout Program.

### Management Oversight

Sufficient DLA and DoD management oversight of the DLA reporting process of VE savings was not occurring. DLA Regulation 4140.21 requires VE program managers at the buying centers to verify all reported VE actions, the Director of Technical Operations at each buying center to verify VE actions with reported savings of \$250,000 or more, and the VE Program Manager at DLA Headquarters to verify VE actions with reported savings exceeding \$1 million. While the required officials approved the VE actions, the rationales for the claimed VE savings or the accuracy of the VE savings computations were never challenged even though the questionable bases and savings inaccuracies were evident from available documentation.

The DoD VE Program Manager did not question savings DLA reported, even though no other Military Department buying centers claimed savings involving the procurement of spare parts. The Navy footnoted its FY 1994 VE report that the Naval Supply Systems Command Price Fighter Department conducted value analysis reviews that resulted in savings of \$33.5 million. However, the Navy reported these savings under its "Buy Our Spares Smart" program and did not include the savings in the VE report.

### Conclusion

The DLA did not clearly differentiate VE savings from savings generated through other cost-reduction initiatives or through other actions normally expected in the performance of assigned duties or functions. DLA used the VE Program to report savings from competition actions that would not result in reportable savings if properly classified under long-standing DoD Spare Parts Breakout Program reporting standards. Also, DLA practices did not accumulate and report all costs associated with the generation of savings. Unless savings are accurately and consistently reported along with off-setting costs, DoD managers are unable to realistically determine the cost-effectiveness of VE or other cost-reduction initiatives. The August 1996 DoD VE Strategic Plan does not specify how VE will be integrated or coordinated with other cost-reduction programs such as the DoD Spare Parts Breakout Program.



## **Management Comments on the Finding and Audit Response**

**Defense Logistics Agency Comments on the Finding.** DLA disagreed with the auditors' interpretation of what should be included under the definition of VE. DLA stated that OMB Circular No. A-131 provides that VE analyzes the function of an item or process to determine "best value," or the best relationship between worth and cost. By definition, there are no limits on the possible application of the VE function analysis methodology or best value determinations and VE is one of many tools to use alone or with other tools to improve operations and reduce costs. DLA stated that VE is a tool that allows everyone to question the entire supply support decision process and identify those functions where change can lower total costs.

Also, DLA stated that, except under very special circumstances, accounting for indirect costs outside of the VE office is not practical and adds no value to the VE process. However, DLA was considering developing a factor to cover the indirect costs of the VE program.

**Audit Response.** As discussed in the finding, neither DoD nor DLA has clearly defined and differentiated VE from other cost-reduction initiatives. DLA interpreted VE to include the performance of supply functions, such as inventory management, purchasing, breakout, competitive acquisitions, and normal management decisions relating to these functions. This interpretation is not consistent among all DoD components. During the audit, we discussed the issue of whether savings resulting from spare parts breakout and competition should be reported as VE savings with an Office of Federal Procurement Policy official who was the focal point for OMB Circular No. A-131. He believed that savings reportable under existing cost-reduction initiatives such as the Spare Parts Breakout Program and savings incidental to the performance of normal duties and competition should not be reported under OMB Circular No. A-131. He stated that the Circular recognizes that agencies may have other cost-reduction processes in addition to VE. He stated that the savings reported under the VE program should be based on study of the functions of items or processes through the application of VE analytical techniques.

The development by DLA of a reliable factor for indirect costs appears to be an efficient alternative to the detailed accounting of actual costs. We further address this matter in the audit response to Recommendation A.2.b.

## Recommendations, Management Comments, and Audit Response

**A.1. We recommend that the Under Secretary of Defense for Acquisition and Technology task the DoD Value Engineering Program Executive Steering Group with developing guidance on the use and reporting of value engineering and incorporating it into the DoD Acquisition Deskbook. The guidance should:**

**a. Include guidelines for clearly differentiating value engineering from other cost-reduction initiatives such as the DoD Spare Parts Breakout Program and from other activities normally expected in the performance of functions such as inventory management and purchasing.**

**b. Provide for the consistent application and reporting of value engineering results among the Military Departments and Defense Agencies by requiring the DoD Value Engineering Program Manager to review and approve annual plans to use value engineering or other cost-reduction initiatives.**

**c. Require that the DoD Value Engineering Program Manager review value engineering savings reported by the Military Departments and Defense agencies to ensure the accuracy and consistency of reported value engineering savings and associated costs.**

**Management Comments Required.** The Under Secretary of Defense for Acquisition and Technology, did not comment on a draft of this report.

**A.2. We recommend that the Director, Defense Logistics Agency, revise guidance in Defense Logistics Agency Regulation 4140.21 to:**

**a. Differentiate the application of value engineering techniques and the reporting of value engineering savings from other cost reduction initiatives. The guidance should:**

**(1) Limit value engineering savings to actions that clearly demonstrate the application of value engineering techniques to include a functional analysis, an evaluation of worth, and a cost comparison.**

**(2) Prohibit reporting savings from other established cost-reduction initiatives or routine management duties such as the DoD Spare Parts Breakout Program, inventory management, or purchasing duties.**

**Management Comments.** DLA nonconcurred with the recommendations and stated that the auditors narrowly interpreted what should be included under the definition of VE and that the auditors focused on the Military Departments major weapons systems VE process. DLA stated that the potential for VE savings are greatest during the early design and development phases of those major weapons systems and that DLA was seldom involved in that stage of development. Instead, DLA provided spare parts after the major weapons

## Finding A. Validity of Reported Savings and Costs

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systems were deployed. DLA stated that since its ability to apply VE and change design is limited, DLA has found that the best way to maximize the VE Program return on investment is to improve the procurement process by optimizing the methods and means of procurement by concentrating and applying VE resources. DLA stated that the DoD VE Handbook recognizes breakout, competition, and spares management as legitimate applications of VE. Also, an August 29, 1983, Secretary of Defense memorandum directed the Military Services and Defense Agencies to employ VE to investigate spare parts where cost or price exceed intrinsic value. Finally, DLA stated that the policy on the use of VE contained in DLA Regulation 4140.21 reflects the OMB policy to use VE as a management tool where appropriate to improve and maintain the quality of programs and acquisition functions.

**Audit Response.** We continue to believe that DLA should revise DLA Regulation 4140.2 as recommended. We recognize that this action should be taken in concert with the Military Departments and the Office of the Under Secretary of Defense for Acquisition and Technology to achieve consistency in the reporting of VE savings by the DoD components.

The DoD VE Handbook is ambiguous regarding breakout, competition, and spares management being legitimate applications of VE. The Handbook stated:

The VE program in the DoD includes activities which do not necessarily use the function analysis technique. For example, activities organized to support the DoD Component Breakout, Competition, and Spares Management initiatives may not utilize all of the elements of the VE job plan as explained later in this Handbook.

The DoD VE Handbook, a 110-page document, does not subsequently discuss the activities that do not use the function analysis technique such as breakout, competition, or spares management. Also, the Handbook does not state that savings from breakout, competition, and spares management should be reported under the VE program. The Secretary of Defense issued the August 29, 1983, memorandum because of spare parts overpricing identified during audits by the Inspector General, DoD, and the Military Department audit agencies. Intrinsic value analysis is VE because it is analysis of the worth of a particular item. Determining the intrinsic value of an item is often a joint or team function, involving pricing, technical, and perhaps other functional specialists. Interestingly, there is no reference to the direction in the Secretary of Defense memorandum in the DoD VE Handbook, which was published in March 1986. We ask that DLA reconsider its position on the recommendation and provide comments on the final report.

**b. Provide for the accurate identification and reporting of all incurred costs associated with value engineering and other established cost-reduction initiatives such as the DoD Spare Parts Breakout Program.**

**Management Comments.** DLA nonconcurred and stated in response to the finding that, except under very special circumstances, detailed accounting for the incurred costs is impractical and adds no value to the VE process. DLA

## Finding A. Validity of Reported Savings and Costs

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stated that it is considering adding a percentage factor to cover indirect costs when they calculate VE Program return on investment. The percentage figure will be obtained by sampling a small number of VE projects.

**Audit Response.** The development of a percentage factor to account for indirect costs when reporting on VE results and calculating VE return on investment would satisfy the intent of the recommendation. We request that DLA, in responding to the final report, identify the specific actions that it will take to develop the factor for indirect costs and the date that it will implement the factor.

## Management Comments and Audit Response on Management Controls

**DLA Comments.** DLA disagreed that the inaccurate computing and reporting of VE savings was due to management control weaknesses but did not provide any additional comments.

**Audit Response.** DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires that each DoD Component implement management controls to provide reasonable assurance that programs, and administrative and operating functions are efficiently and effectively carried out in accordance with applicable law and management policy. We believe that the inaccurate reporting of VE savings and cost data by DLA resulted from a systemic weakness because DoD and DLA guidance did not adequately define or differentiate VE from other cost-reduction initiatives. DoD Directive 5010.38, subsection E.3. requires OSD functional proponents to identify systemic control weaknesses for inclusion in the DoD Annual Statement of Assurance.

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## **Finding B. Contractor Participation in DoD Value Engineering Program**

The Defense Contract Management Command (DCMC) did not actively promote and track Defense contractor VE Programs, did not review contracts for VE incentive clauses, and did not report any VE accomplishments during FY 1994. Also, Defense Personnel Support Center (DPSC) did not include a VE incentive clause as required by the Federal Acquisition Regulation in 7 of 38 contracts reviewed. These conditions occurred because:

- o DCMC officials considered VE a low priority and the responsibility of DoD program offices;

- o DCMC did not consistently follow the requirements of DLA Directive 5000.4, "Contract Management," Part VI, Chapter 13, "Value Engineering"; and

- o contracting officers responsible for contracts at DPSC did not provide adequate oversight to ensure that VE incentive clauses are in the contracts.

These conditions contributed to contractor reluctance to submit VECs and in lost opportunities to reduce DoD procurement and maintenance costs for DoD acquisition programs.

## **Promoting, Monitoring, and Reporting Contractor Value Engineering Results**

**Benefits of VECs.** Implementation of approved VECs results in contractor cost-reduction and avoidance. Savings are shared by the Government and contractors and can extend to successive contracts. Thus, the Government has significant impetus to motivate contractors to submit VECs.

**Responsibilities for Reviewing Contractor VECs.** DCMC assists the procuring contracting officers and program offices in administering VE activities with Defense contractors. DCMC responsibilities for VE are primarily implemented by the DCMC contract administration offices, which include Defense Contract Management Area Offices (DCMAOs) and Defense Plant Representative Offices (DPROs), and begins with the review of contracts to determine whether a VE incentive clause should be included. DLA Directive 5000.4, Part VI, Chapter 13, directs DCMC field personnel to motivate and encourage contractors to participate in the DoD VE Program by assisting contractors in the submission of VECs and following up on the timely processing and resolution of VECs submitted to program offices and

## **Finding B. Contractor Participation in DoD Value Engineering Program**

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contracting officers. FAR 48.103, "Processing Value Engineering Change Proposals," requires that upon receiving a VECP, the contracting officer shall promptly process and objectively evaluate, accept, or reject the VECP within 45 days from its receipt.

**Promoting and Monitoring VE by DCMC.** Headquarters, DCMC, and the three DCMC Districts each had one person who was responsible for VE issues as an additional duty. The Headquarters, DCMC, VE manager stated that he only responded to VE matters when specifically requested and that he did not actively monitor the status of Defense contractor VE Programs. The DCMC Southern District VE manager stated that his region did not actively emphasize VE and that he was not aware of any contractor participation in the VE Program. The DCMC Western District VE manager was new to the job and was not entirely familiar with the duties involved or the status of contractor participation in the VE Program. The DCMC Northeast District VE manager stated that he responded to questions from field elements about VE and that contractor involvement in the VE program was low because contractors incurred losses when preparing and submitting past VECPs that were not accepted.

We visited DCMC VE officials at the Raytheon and McDonnell Douglas DPROs and the Boston and St. Louis DCMAOs. The DPRO Raytheon actively supported Army and Air Force program efforts to implement VECPs the Raytheon Corporation submitted. The DPRO met with the contractor monthly to discuss VE efforts and monitored the progress of VECPs through a VE surveillance plan. The DPRO McDonnell Douglas was not actively involved in promoting or monitoring on-going VE activity involving Navy programs. Additionally, the VE manager at DPRO McDonnell Douglas stated that he was unaware of who the VE manager was at the DCMC Headquarters and at the Western District.

**DLA Customer Survey.** DLA annually surveys DoD program offices and buying activities by issuing a Customer Assessment Report to determine their interest and satisfaction with the contract administration services that DCMC provides. DCMC uses this report to communicate to the contract personnel in the various field offices information pertaining to customer-oriented baselines against which future performance is measured. In 1992, DCMC rated the administration of VECPs as low importance and low satisfaction because no customers responded to the VECP element. In October 1993, DCMC concluded that the Military Departments were not interested in VECP administration and removed this element from the Customer Assessment Report.

**Monitoring Contractor VECP Efforts.** DCMC has not actively monitored and tracked contractor VECPs. The DCMC management information reporting system maintained incomplete data on contractor VECPs. It included data on VECPs that were in process and approved and related dollar savings but did not maintain data on VECPs that were disapproved or information on the costs of administering VECPs. Although the DCMC management information system provided for tracking the timeliness of processing VECPs, the DCMC did not use the system to monitor this information. The DCMC VE manager stated that during FY 1995, DCMC converted from the management information reporting system to an automated configuration tracking system. This automated

## **Finding B. Contractor Participation in DoD Value Engineering Program**

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configuration tracking system maintains data on VECs that are processed, approved, and disapproved, but DCMC management has not used the information. During this change of information systems, VEC activity data from October 1994 through February 1995 was maintained at the various subordinate commands, but never input to the new, automated configuration tracking system.

Maintenance of accurate and timely information on contractor VEC efforts could identify opportunities for additional VE savings and would provide useful statistical data to DoD managers. Data independently reported by DCMC would provide the DoD and Military Departments VE Program managers an effective tool for ensuring that contracting officers and program officials were adequately considering contractor VECs and accurately reporting on the results of those VECs.

## **Contract Management Requirements for Value Engineering**

DCMC did not follow the requirements of DLA Directive 5000.4, Part VI, Chapter 13. The Headquarters, DCMC, VE manager stated that DCMC field elements did not consistently screen contracts to ensure that they contained required VE clauses and did not issue deficiency reports when contracts were received without VE clauses. The DCMC VE manager stated that Military Department officials ignored prior deficiency reports involving missing VE clauses so DCMC stopped issuing deficiency reports to contracting officers. We determined that the DPRO McDonnell Douglas was not emphasizing VE to the contractor and was not involved in evaluating and processing VECs submitted by the contractor.

Prior studies and reviews have consistently recognized that senior management support and dedicated application of resources to VE are required for the successful implementation of VE and the realization of savings. The DCMC can play a significant role in conveying the DoD interest in VE to Defense contractors by ensuring that contracts have necessary VE contract clauses, by notifying contractors of the benefits of VE through personal visits or through promotional letters, and by assisting contractors and program officials in the timely resolution of contractor-submitted VECs.

## **Value Engineering Contract Clauses**

**Guidance Requiring Federal Acquisition Regulation and DLA VE Incentive Clauses.** FAR 48.102, "Policies," requires that contracting activities provide contractors a financial incentive to develop and submit VECs by including a VE incentive clause or a VE program requirement clause in contracts. A VE incentive clause is required in contracts expected to be \$100,000 or more unless exempted. Implementing guidance in DLA Regulation 4140.21 requires that

## **Finding B. Contractor Participation in DoD Value Engineering Program**

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contracts exceeding \$25,000 will have a VE incentive clause. FAR 48.201, "Clauses for Supply or Service Contracts," exempts certain contracts for research and development, engineering services, personal services, product or component improvement, and commercial products that do not involve packaging specifications, from this requirement. The required incentive clause is in FAR 52.248-1, "Value Engineering," and a contractor's participation under the clause is voluntary. A program requirements clause is used if the contracting officer believes that the Government will benefit from a sustained VE effort by a contractor. A program requirements clause is a mandatory effort that is funded in the contract. Savings identified by contractors are shared based on defined sharing arrangement guidelines in the FAR.

**Defense Personnel Supply Center Using Required Clauses.** Contracting officers and VE managers at DPSC did not include a VE incentive clause in 7 (valued at \$4.4 million) of 38 (valued at \$77 million) contracts reviewed. We identified 1 of 17 contracts at DPSC-Subsistence Division, 3 of 6 contracts at DPSC-Medical Division, and 3 of 15 contracts at DPSC-Clothing and Textiles Division that did not include the required incentive clause because contracting officers unintentionally omitted the clause. Also, DCMC did not emphasize to its field offices the importance of reviewing contracts to ensure that the VE clauses are included when required. Without the VE incentive clause, contractors are not motivated to submit cost savings proposals or share in potential savings under the DoD VE Program.

### **Submission of VECPs by Eligible Contractors**

Without the active support of DCMC and DoD program officials, contractors are reluctant to participate in the DoD VE Program, and opportunities to reduce DoD acquisition and maintenance costs may be lost. Of the 15 contractors interviewed, 2 contractors stated that they were no longer participating in the DoD VE Program by submitting VECPs. The contractors stated that the Government was no longer interested in VE. Another four contractors stated that program offices and contracting officers placed a low priority on processing VECPs, which resulted in long processing times and delays. Those long processing times and delays discouraged contractors from submitting VECPs. Seven contractors stated that the Army had supported their VECF efforts. Five contractors for the Navy and two contractors for the Air Force stated their VECF efforts were not supported.

The assessment of the VECF Program that we obtained from the interviews with contractors is consistent with FY 1994 VE statistics the DoD VE Manager compiled and reported to the OMB. Of the 76 major Defense acquisition programs (MDAPs) with FY 1994 funding authority of \$41.1 billion, only 12 MDAPs (7 Army, 2 Navy, and 3 Air Force) had VECF activity reported during FY 1994. Also, the Army support for contractor VECFs is reflected in the number of VE requirements clauses in their contracts. During FY 1994, the



## **Finding B. Contractor Participation in DoD Value Engineering Program**

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DoD VE Manager reported that the Army placed 91, the Navy none, and the Air Force 8 VE requirements clauses in contracts. We will address the application of VE to MDAPs in the Army, the Navy, and the Air Force in future reports.

Additional oversight and emphasis on the benefits of VE by DCMC and by DoD program officials should result in increased contractor participation in the DoD VE Program and associated reductions in DoD acquisition and maintenance costs.

## **Management Comments on the Finding and Audit Response**

**Defense Logistics Agency Comments on the Finding.** DLA nonconcurred with the finding and stated that DCMC fully supports VE. DLA stated that the audit did not identify any situation where DCMC did not provide VE support when requested by a buying activity, a program office, or a contractor. DLA stated that the buying activities and program offices have the greatest influence with contractors in motivating the submission of VECs. DLA further stated that the speed in which the buying activity or program office process VECs, the number of VECs accepted, and the stated reasons for rejecting VECs are the greatest influences on contractor participation in the VE Program.

**Audit Response.** DCMC can play a more active role in the DoD VE Program by encouraging contractors to submit VECs, ensuring contracts include appropriate VE clauses, providing assistance to expedite the review and approval of VECs, and tracking results. In December 1995, the Under Secretary of Defense for Acquisition and Technology, as part of the Single Process Initiative, directed DoD administrative contracting officers to encourage contractors to submit proposals for changes to management and manufacturing requirements on existing contracts. Although, the Single Process Initiative is to be used in addition to existing contracting tools such as VECs, we believe that the management council established to deal with specification and process changes submitted under the Single Process Initiative could serve as a vehicle for facilitating the increased involvement of contract administration offices in VE and for motivating contractors to perform VE on DoD contracts.

## **Recommendations, Management Comments, and Audit Response**

**B.1. We recommend that the Commander, Defense Contract Management Command:**

## **Finding B. Contractor Participation in DoD Value Engineering Program**

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**a. Issue a memorandum to all Defense Contract Management Command elements emphasizing the importance of value engineering and of their responsibilities for adhering to Defense Logistics Agency Directive 5000.4, "Contract Management." The memorandum should specifically instruct the contract administration offices to:**

**(1) Screen contracts for required value engineering clauses, notify contracting officers when contracts are received without required clauses, and encourage Defense contractors to participate in the DoD Value Engineering Program.**

**(2) Report and monitor the results of value engineering efforts and effectively coordinate with Military Departments and Defense agency contracting officers and program managers to ensure the savings through value engineering are achieved whenever possible.**

**b. Provide the Military Department and DoD Value Engineering program managers statistical data on value engineering change proposals submitted, approved, savings realized, and processing cycle time for their use in ensuring the accuracy of information reported annually to the Office of Management and Budget.**

**Management Comments.** DLA concurred with the recommendations and stated that DLA will issue a memorandum to Defense Contract Management Command field offices emphasizing the importance of value engineering and instructing them to adhere to the requirements of DLA Directive 5000.4, "Contract Management," Part VI, Chapter 13, "Value Engineering." DLA plans to complete these actions by November 20, 1996.

**B.2. We recommend that the Commander, Defense Personnel Support Center, instruct contracting officers to include value engineering clauses in contracts as required by Federal Acquisition Regulation 48.102, "Policies."**

**Management Comments.** DLA nonconcurred with the recommendation and stated that the Defense Personnel Support Center (DPSC) Contracting Policy Manual 4105.7 instructs contracting personnel to incorporate the VE incentive clause in contracts as required and that the DPSC Clothing and Textiles VE program manager had disseminated a reminder to all procurement personnel in the DPSC Clothing and Textiles Division.

**Audit Response.** The DLA comments are partially responsive to the intent of the recommendation. The audit also identified contracts from the DPSC Subsistence and the DPSC Medical directorates that did not include the VE incentive clause required by FAR 48.102 and by the DPSC Contracting Policy Manual 4105.7. Accordingly, procurement personnel from those directorates should also be reminded of that requirement. We ask that DLA provide comments in response to the final report.



## **Part II - Additional Information**

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## Appendix A. Scope and Methodology

### Scope

The audit covered the policies and procedures the Defense Logistics Agency (DLA) used to implement, monitor, and report the results of value engineering (VE) efforts. We reviewed actions by the Defense Contract Management Command (DCMC) to administer and promote VE by Defense contractors. The audit is the first in a series of reports that will address DoD VE efforts.

**Universe and Sample Information.** We obtained audit universe information on VE savings projects from DLA. During FY 1994, DLA reported \$111.9 million of in-house and contractor VE savings. Those savings were derived from 3,357 VE projects (proposals) and involved \$6.7 million of associated costs. To review the accuracy of VE savings reported by DLA, we reviewed 130 VE projects involving \$19 million of reported savings at 3 DLA buying centers: the Defense General Supply Center (DGSC); the Defense Industrial Supply Center (DISC); and the Defense Personnel Support Center (DPSC). We included DGSC and DISC in our audit based on the number of VE projects and VE savings reported. We included DPSC in the audit because DPSC had the majority of VECP projects and savings the DLA reported during FY 1994. The three DLA buying centers reviewed were responsible for \$56.8 million of the reported VE savings; 2,685 of the VE projects; and \$3.75 million of the reported costs. Appendix C summarizes the universe of VE projects and savings DLA reported to DoD and the VE projects and savings reviewed at the DLA buying centers.

**Technical Assistance.** Personnel from the Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD, assisted in selecting the random samples for VE saving projects for review at DGSC and DISC and judgmental samples for projects for review at DPSC.

**Use of Computer-Processed Data.** We used computer-processed data DGSC and DISC provided to select VE savings projects for review. We assessed the reliability of the data in the DGSC and DISC data base concerning the classification and the dollar amounts of the reported VE savings projects. We determined that the classifications and the dollar amounts reported generally agreed with the classification and amounts on supporting VE project worksheets.

**Audit Period and Standards.** We performed this economy and efficiency audit from April 1995 through April 1996 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Accordingly, we included a review of management controls considered necessary.

### Methodology

We interviewed personnel responsible for implementing, using, and monitoring VE from DLA, DCMC, the Office of the Under Secretary of Defense for Acquisition and Technology, and the Office of Management and Budget. We also interviewed 15 Defense contractors concerning their use and participation in the DoD VE Program. We visited three DLA buying centers to evaluate the use and reporting of VE and four DCMC contract administration activities to evaluate efforts to promote VE and monitor contractor VE programs. We evaluated VE plans, VE proposals, technical data, VE savings computations, and applicable contract files. Appendix E lists the officials and organizations visited or contacted during the audit.

### Management Control Program

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

**Scope of Review of the Management Control Program.** We reviewed the adequacy of DLA, DCMC, and Office of the Under Secretary of Defense for Acquisition and Technology management controls over VE. Specifically, we examined management controls over the use of VE and the computing and reporting of VE savings. We assessed the DLA self evaluation of those controls.

**Adequacy of Management Controls.** DLA management controls for VE were not adequate to ensure that VE savings were accurately computed and reported. Recommendations A.1., A.2., and B.1.b., if implemented, will assist in correcting the weaknesses. If management implements Recommendations A.1.b., B.1., and B.2., then the use of VE should improve and potential monetary benefits could be realized. However, we could not determine the amount because the amount depends on the number of VE actions initiated and the VE savings realized from those initiated VE actions. A copy of the report will be provided to the senior official responsible for internal controls in DLA. We will comment further on the materiality of the control weaknesses found throughout the DoD VE Program in our summary report.

**Adequacy of Management's Self-Evaluation.** DLA officials identified reporting and computing of VE savings as an assessable unit; however, DLA assigned a low level of risk to that assessable unit and did no further testing. DLA should have assigned a higher level of risk to the area and should have evaluated the applicable management controls. The use of VE as an acquisition cost-reduction tool was an area of special interest to the Under Secretary of Defense for Acquisition and Technology and the Office of Management and Budget. Inaccurate and inconsistent reporting of VE savings and cost data diminishes the credibility of the program and results in unreliable information for assessing its relative effectiveness in comparison to other cost-reduction initiatives.

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## **Appendix B. Summary of Prior Audits and Other Reviews**

### **President's Council on Integrity and Efficiency**

**"Value Engineering Project Summary Report," August 5, 1991.** The report, which was based on audits and reviews performed by the Inspectors General of the Departments of Transportation, Justice, Health and Human Services, Interior, and the General Services Administration, stated that Federal Agencies had not maximized the use of VE to reduce costs, including the use of VE in grant programs. The report recommended that OMB revise and reissue Circular A-131 to strengthen and provide more definitive guidance for the implementation of VE. Additionally, the report recommended that an ad hoc committee be created, composed of representatives from OMB and applicable agencies, to share information among agencies for their mutual benefit and to support legislation requiring the appropriate use of VE in all Federal programs. OMB Circular A-131 was revised to clarify agency implementation responsibilities and was reissued May 21, 1993.

### **General Accounting Office**

**Report No. T-GUIDE-92-55, "Value Engineering: Usefulness Well Established When Applied Appropriately," June 1992.** The General Accounting Office (GAO) testified before the Subcommittee on Legislation and National Security, House Committee on Government Operations, that VE has proven to be a cost-saving technique. GAO stated that appropriate use of VE can result in providing indisputable benefits in construction, weapons, and system programs. GAO further stated that VE is one of many useful techniques for improving productivity and reducing cost but may not be useful in all cases reviewed. Accordingly, a VE Program should promote the effective use of VE but resources should be carefully allocated to prevent them from being wasted on unnecessary or inappropriate reviews.



### Inspector General, DoD

**Report 88-195, "DoD In-House Value Engineering Program," August 22, 1988.** The report stated that the DoD In-House Value Engineering Program served primarily as a vehicle for reporting savings accomplished by other initiatives rather than through the application of VE techniques. Of the \$987 million in program savings claimed in FY 1986, \$705 million was the result of other cost reduction or savings initiatives. The report also stated that another \$192 million of VE reported savings were incorrectly reported. The reported problems were attributed to the lack of definitive guidance and resulted in ineffective program performance and the reporting of misleading program results.

The report recommended that DoD Directive 4245.8, "DoD Value Engineering Program," (now canceled) and DoD 4245.8-H, "DoD Value Engineering Handbook," be revised to provide for more precise criteria for defining in-house VE proposals and savings and to establish documented savings goals through annual plans. The report also recommended that the DoD VE committee review DoD Components goal-setting processes along with the annual review of VE plans. The report further recommended reporting in-house savings only in the fiscal year the proposal is implemented and clarifying the elements of cost to report as VE. Finally, the report recommended that the DoD VE Program manager be directed to develop and implement procedures for critiquing the validity of DoD Components savings reports and to implement the DoD Directive 4245.8 requirement for management reviews of VE proposals with savings of \$100,000 or more. DoD initiated actions to implement the recommendations through DoD Directive 4245.8. However, DoD Directive 4245.8 was canceled February 23, 1991, as a result of the Defense Management Review, and no replacement guidance was issued.

# Appendix C. Summary of Defense Logistics Agency Reported Value Engineering Savings for FY 1994 and Value Engineering Savings Reviewed

(Dollars in millions)											
DCSC			DESC			DGSC			DISC		
<u>Savings Reported</u>	<u>Savings Reviewed</u>		<u>Savings Reported</u>	<u>Savings Reviewed</u>		<u>Savings Reported</u>	<u>Savings Reviewed</u>		<u>Savings Reported</u>	<u>Savings Reviewed</u>	
In-House VEPs											
Projects	569	0	103	0		1,603	50		1,034	51	
Savings	\$30.90	0	\$24.24	0		\$25.32	\$6.59		\$21.08	\$4.56	
									\$9.02	\$6.87	
Contractor VECs											
Projects	1	0	0	0		2	0		0	0	
Savings	0	0	0	0		\$0.05	0		0	\$0.94	
Costs	\$2.34	*	\$0.65	*		\$1.63	*		\$1.62	*	

\* Costs not reported for individual projects.

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## Appendix D. Value Engineering Techniques

The DoD 4245.8-H, "DoD Value Engineering Handbook," March 1986, describes value engineering as a purposeful, planned approach to cost reduction that uses the best tools of science, engineering, and industrial management. Rather than relying on unplanned efforts and undisciplined ingenuity, the Handbook describes VE in terms of a well-defined, seven-phase VE job plan for each project.

VE is distinguished from other cost-reduction techniques by the analyses performed early in the process as described below.

**Functional Analysis.** The primary objective of functional analysis is to facilitate the discovery of alternative means of achieving the desired performance. In analyzing the functions of a large system, the system is commonly divided into major areas. Each major area may then be evaluated through functional analysis as an element of the next larger assembly, in terms of its own components, or as an identifiable, nondivisible item. Function is defined as the specific purpose or intended use and describes what must be achieved. A two-word, verb-noun description is used to describe function in a simple and accurate manner. For example, the function of an electrical wire may be described as "conduct current." Functions are first categorized as basic or secondary functions. An item's basic function is the function required to provide the essential utility needed by the user. Secondary functions play an enabling role and merely make the basic function achievable. Since secondary functions add directly to cost but do not contribute to worth, VE attempts to minimize the number of secondary functions. Secondary functions are assigned a value of zero, as discussed below.

**Analysis of Worth.** Once the basic and secondary functions of an item have been identified, each basic function is assigned a worth. Worth is the least expenditure required to provide a basic function needed by the user and is established by comparison. One method of approximating worth is by determining the cost of a functional equivalent. For example, the worth of a bolt used to fasten a wing to an airplane may be based on the cost of glue that would accomplish the same purpose. Worth is not affected by the consequence of a failure. If the bolt supporting the aircraft wing failed, the plane might crash, but the bolt's worth is still the lowest cost necessary to provide a reliable fastener.

**Cost.** Once the function and worth are determined, costs are assigned to each basic and secondary function. Cost is the total funds required to acquire, use, and maintain the specified functions. For the seller, cost is the total expense of producing a product. For DoD, the total cost includes not only the seller's cost, but also the cost of introducing it into the DoD inventory, operating it, supporting it throughout its usable life, and disposing of it when it no longer serves a functional purpose. Total cost also includes a proportionate share of in-house expenditures for development, engineering, testing, spare parts, and various categories of overhead expenses.

**Value Analysis.** Using the information gathered above, the VE team makes a "go" or "no-go" decision on whether to continue the VE study. This decision is based on a value index representing the ratio of worth to cost. Assemblies, components, or items having a low ratio of worth to cost are candidates for further pursuit under the VE process.

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## **Appendix E. Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology, Washington, DC  
Director, Test Systems Engineering and Evaluation, Falls Church, VA  
Under Secretary of Defense (Comptroller), Washington, DC  
Chief Financial Officer, Washington, DC

### **Department of the Army**

Army Materiel Command, Alexandria, VA

### **Department of the Navy**

Office of the Assistant Secretary of the Navy (Research, Development and Acquisition), Arlington, VA  
Naval Air Warfare Center, Indianapolis, IN  
Navy Supervisor of Shipbuilders, Newport News Shipbuilders, Newport News, VA

### **Department of the Air Force**

Deputy Assistant Secretary of the Air Force, (Management Policy and Program Integration), Washington, DC

### **Other Defense Organizations**

Defense Logistics Agency  
Defense Contract Management Command, Alexandria, VA  
Defense Contract Management Area Office, Boston, MA  
Defense Contract Management Area Office, St. Louis, MO  
Defense General Supply Center, Richmond, VA  
Defense Industrial Supply Center, Philadelphia, PA  
Defense Personnel Support Center, Philadelphia, PA  
Defense Plant Representative Office, McDonnell Douglas Division, St. Louis, MO  
Defense Plant Representative Office, Raytheon Division, Burlington, MA  
Defense Mapping Agency, Fairfax, VA

## **Non-Defense Organization**

Office of Management and Budget, Office of Federal Procurement Policy,  
Washington, DC

## **Non-Government Organizations**

Alliant Techsystems, Hopkins, MN  
Bath Iron Works, Bath, MA  
Bell Helicopters, Fort Worth, TX  
Boeing Defense and Space Group, Seattle, WA  
Casde Corporation, Alexandria, VA  
Computer Devices International, Bloomington, MN  
Electronics Industry Association, Arlington, VA  
Lockheed Martin Defense Systems, Pittsfield, MA  
Lockheed Martin Tactical Aircraft, Fort Worth, TX  
Loral Vought Systems, Dallas, TX  
McDonnell Douglas Helicopter Systems, Mesa, AZ  
McDonnell Douglas Aircraft Company, St. Louis, MO  
Newport News Shipbuilding Company, Newport News, VA  
Raytheon Corporation, Burlington, MA  
Tracor Aerospace, Austin, TX  
Westinghouse Electronic System, Baltimore, MD

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## **Appendix F. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology  
Deputy Under Secretary of Defense (Acquisition Reform)  
Director, Test Systems Engineering and Evaluation  
Director, Defense Procurement  
Director, Defense Logistics Studies Information Exchange  
Under Secretary of Defense (Comptroller)  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)  
Assistant to the Secretary of Defense (Public Affairs)

### **Department of the Army**

Auditor General, Department of the Army

### **Department of the Navy**

Assistant Secretary of the Navy (Financial Management and Comptroller)  
Auditor General, Department of the Navy  
Director, Dudley Knox Library, Naval Postgraduate School

### **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Auditor General, Department of the Air Force

### **Other Defense Organizations**

Director, Defense Contract Audit Agency  
Director, Defense Logistics Agency  
Commander, Defense Contract Management Command  
Commander, Defense General Supply Center  
Commander, Defense Industrial Supply Center  
Commander, Defense Personnel Support Center  
Director, National Security Agency  
Inspector General, National Security Agency  
Inspector General, Defense Intelligence Agency

## **Non-Defense Federal Organizations and Individuals**

Office of Management and Budget  
Technical Information Center, National Security and International Affairs Division,  
General Accounting Office

Chairman and ranking minority member of each of the following congressional  
committees and subcommittees:

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
Senate Subcommittee on Oversight of Government Management, Committee on  
Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on National Security, Committee on Appropriations  
House Committee on Government Reform and Oversight  
House Subcommittee on National Security, International Affairs and Criminal  
Justice, Committee on Government Reform and Oversight  
House Committee on National Security





## **Part III - Management Comments**

# Defense Logistics Agency Comments



**DEFENSE LOGISTICS AGENCY**  
HEADQUARTERS  
8725 JOHN J. KINGMAN ROAD, SUITE 2533  
FT. BELVOIR, VIRGINIA 22060-6221

IN REPLY  
REFER TO

DDAI

JUL 26 1996

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING,  
DEPARTMENT OF DEFENSE

SUBJECT: DoD IG Draft Report on the Defense Logistics Agency Value Engineering  
Program (5CH-5038)

Enclosed is our reponse to your request of 24 May 1996. If you  
have any questions, please call Mr. Dave Stumpf, (703) 767-6266.

Encl

*for* *Davis & Stumpf*  
JACQUELINE G. BRYANT  
Chief, Internal Review Office

CC:  
AQBE  
AQOF  
MMBPA  
MMLXE

**AUDIT TITLE:** Defense Logistics Agency Value Engineering Program, 5CH-5038

**FINDING A:** Validity of Reported Savings. DLA reported savings and costs from non-VE cost-reduction initiatives as VE savings and investment costs. DLA also understated its costs related to VE and the other cost-reduction initiatives at the three buying centers we reviewed by an undeterminable amount. The reporting inaccuracies occurred because:

- Under Secretary of Defense for Acquisition and Technology and DLA guidance did not clearly define VE or differentiate VE from other cost-reduction initiatives:

- DLA guidelines did not provide for the accumulation costs outside the VE offices at the buying centers; and

- DLA managers at the three buying centers, DLA Headquarters, and the Office of the Assistant Secretary of Defense (Economic Security) did not thoroughly review the basis and the accuracy of calculations for savings claimed.

Of the 130 projects reviewed, with savings valued at \$19.0 million that DLA reported during FY 1994, 120 projects, valued at \$15.7 million, were based on competition and other non-VE cost-reduction initiatives. Of the \$3.3 million of savings reported for the 10 projects that were VE, \$2.0 million was either overstated or not supported by sufficient documentation. As a result, DLA overstated its VE savings for the three DLA buying centers reviewed and the overall effectiveness of the DLA VE Program was not readily determinable.

**DLA COMMENTS:** We nonconcur with the IG's interpretation of what should be included under the definition of VE. Both DoD 5000 and OMB Circular A-131 states that VE analyzes the function of an item or process to determine the "best value", the best relationship between cost and worth, represented by an item or process that consistently performs the required basic function and has the lowest total cost. The IG states that "DLA reported savings and costs from non-VE cost-reduction initiatives." By definition, there are no limits on the possible application of the VE function analysis methodology, or "best value" determinations and cost/worth trade-offs. Further, VE is only one of many management tools to be used alone or to complement other management techniques and methodologies to improve operations and reduce cost as appropriate.

The DoDIG alleges that the Defense Supply Centers (DSCs) are overstating their return-on-investment (ROI) because costs outside the VE office are not captured. The DLA position is that except under very special circumstances, accounting for these indirect costs is impractical and adds no value to the VE process. As the DSCs report hundreds of VE cases per year, any effort to accurately capture these costs would exceed the management value of having these costs available. However, we are considering having the DSCs add a percentage factor to cover indirect costs when they are calculating the Program's ROI. This figure will be obtained by sampling a small number of VE projects.

The DoDIG refers to "other cost-reduction initiatives" as inventory management, purchasing,

prior decisions, and other management actions. The IG implies that VE should not be involved in these areas because they are "routine functions" and DLA was claiming savings on actions that "should" have been done anyway. The very basis of VE is the function analysis methodology applied to both items and processes and used to identify best value alternatives in performing the current function. In a perfect world, systems and procedures are always optimum for the function being performed. However, in the real world things are constantly changing and VE provides the opportunity to continually improve the current systems and procedures. VE is a tool which allows everyone to question the entire supply support decision process and identify those functions where changing the process can lead to lower total costs.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES: Nonconcur**

**ACTION OFFICER:** Mary Hart, MMLXE, 767-1637

**PSE APPROVAL:** Marshall H. Bailey, Associate Executive Director, Policy, Systems & Engineering

**COORDINATION:** DAVE STUMPF, DDAI, 767-6266

*CH, DDAI, 25 Jul 96*

**DLA APPROVAL:**



RAY E. MCCOY  
Major General, USA  
Principal Deputy Director

**AUDIT TITLE:** Defense Logistics Agency Value Engineering Program, 5CH-5038

**RECOMMENDATION A.2:** Recommend that the Director, Defense Logistics Agency, revise guidance in Defense Logistics Agency Regulation 4140.21 to:

a. Differentiate the application of value engineering techniques and the reporting of value engineering savings from other cost reduction initiatives. The guidance should:

(1) Limit value engineering savings to actions that clearly demonstrate the application of value engineering techniques to include a functional analysis, an evaluation of worth, and a cost comparison.

(2) Prohibit reporting savings from other established cost-reduction initiatives or routine management duties such as the DoD Spare Parts Breakout Program, inventory management, or purchasing duties.

b. Provide for the accurate identification and reporting of all incurred costs associated with value engineering and other established cost-reduction initiatives such as the DoD Spare Parts Breakout Program.

**DLA COMMENTS:** Nonconcur, for the following reasons:

The DoDIG took a narrow interpretation of VE and focused on the Military Departments major weapon systems production process. Unlike the Services, DLA is in the spare parts business. The primary function of our DSCs is supply support procurement, which consumes the majority of our personnel and financial resources. While potential savings are greatest during the planning, design, and other early development phases of projects, programs, systems, and products, DLA is seldom involved in these phases of development, only getting involved “after the fact” when production has begun and deployment to the operational forces is ready to begin. At that point, our ability to apply VE and change the design is limited. We have found the best way for DLA to maximize our VE Programs’ return on investment is to improve our procurement process with our greatest leverage on the cost of these parts being through optimizing the method and means of procurement, which is why we have concentrated our VE activities and resources there.

Historically, VE-identified, competition related savings have been reported under the DLA VE Program for over 30 years. This is a legitimate application as recognized by the DoD VE Handbook which states that the DoD VE Program “includes activities which do not necessarily use the function analysis technique.” Examples of these activities include breakout, competition, and spares management. Further, the Secretary of Defense, in a 29 August 1983 memorandum, subject: Spare Parts Acquisition, directed the Military Services and Defense Agencies to “employ VE to investigate spare parts where cost or price exceed intrinsic value.” In response to this direction, DLA increased the VE staffs at our DSCs and has continued to generate significant savings through investigating the prices paid for spare parts. In an effort to improve internal management efficiencies in December 1992, the Director, DLA, instructed the Commanders of

the DSCs to establish a single overarching program manager in the VE Office responsible for VE, Replenishment Parts Breakout, Should Cost, Reverse Engineering, and the Price Challenge Programs.

Savings reported under the DLA VE Program demonstrate the application of VE techniques and comply with our current policies. DLAR 4140.21 clearly states that reported VE savings must pertain to a project that involved the application of one or more of the three major elements of the VE discipline (i.e., function analysis, evaluation of worth, and cost analysis) and be identified as a VE project prior to final disposition. Further, our policy reflects those of OMB A-131, "7. Policy. Federal Agencies shall use VE as a management tool, where appropriate, to ensure realistic budgets, identify and remove nonessential capital and operating costs, and improve and maintain optimum quality of program and acquisition functions. Senior management will establish and maintain VE programs, procedures and processes to provide for the aggressive, systematic development and maintenance of the most effective, efficient, and economical and environmentally-sound arrangements for conducting the work of agencies, and to provide a sound basis for identifying and reporting accomplishments." Thus, DLAR 4140.21 should remain essentially unchanged, as it is tailored to DLA's unique VE environment.

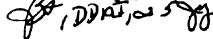
The key to past success in the use of VE has been the broad spectrum of its potential applications. Attempts to limit our management's flexibility in these applications are both counter to the current thrusts of increased management delegation of responsibility and authority in acquisition reform, and the most senior DoD management's direction on the increased use of VE in areas such as identifying commercial alternatives to MILSPECS/STDS, etc.

**DISPOSITION:** Action is Considered Complete.

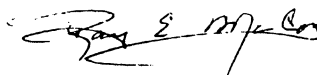
**ACTION OFFICER:** Mary Hart, MMLXE, 767-1637

**APPROVAL:** Marshall H. Bailey, Associate Executive Director, Policy, Systems & Engineering

**COORDINATION:** Daye Stumpf, DDAI, 767-6266



**DLA APPROVAL:**



**RAY E. MCCOY**  
Major General, USA  
Principal Deputy Director

**AUDIT TITLE:** Defense Logistics Agency Value Engineering Program, 5CH-5038

**FINDING B:** Contractor Participation in DoD Value Engineering Program. The Defense Contract Management Command (DCMC) did not actively promote and track Defense contractor VE Programs, did not review contracts for VE incentive clauses, and did not report any VE accomplishments during FY 1994. Also, Defense Personnel Support Center (DPSC) did not include a VE incentive clause as required by the Federal Acquisition Regulation in 7 of 38 contracts reviewed. These conditions occurred because:

- o DCMC officials considered VE a low priority and the responsibility of DoD program offices
- o DCMC did not consistently follow the requirements of DLA Directive 5000.4, "Contract Management," Part VI, Chapter 13, "Value Engineering"
- o Contracting officers responsible for contracts at DPSC did not provide adequate oversight to ensure the VE incentive clauses are in the contracts

These conditions contributed to contractor reluctance to submit VECPs and in lost opportunities to reduce DoD procurement and maintenance costs for DoD acquisition programs.

**DLA COMMENTS:** Nonconcur. DCMC fully supports Value Engineering. We are unaware of any instance where DCMC did not provide VE assistance or encouragement when requested by a buying activity, program office, or contractor. The DoD IG did not identify any situation where DCMC failed to provide VE support when requested. Buying activities and program offices have the greatest influence with contractors in motivating submission of Value Engineering Change Proposals (VECPs). The speed in which a buying activity/program office processes VECPs, the percentage of VECPs that are accepted by the customer, and the stated reasons for rejection are the greatest influences on whether a contractor actively participates in VE.

**INTERNAL MANAGEMENT CONTROL WEAKNESSES:** Nonconcur

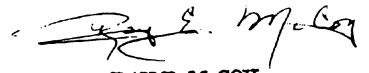
**ACTION OFFICER:** Aristides Maldonado, AQOF, 767-3355

**PSE APPROVAL:** Gary Thurber, Associate Director for Acquisition

**COORDINATION:** Dave Stumpf, DDAI, 767-6266

*JS, DDAI, 25 July 94*

**DLA APPROVAL:**

  
RAY E. McCOY  
Major General, USA  
Principal Deputy Director



**AUDIT TITLE:** Defense Logistics Agency Value Engineering Program, 5CH-5038

**RECOMMENDATION B.1.** We recommend that the Commander, Defense Contract Management Command:

a. Issue a memorandum to all Defense Contract Management Command elements emphasizing the importance of value engineering and of their responsibilities for adhering to Defense Logistics Agency Regulation 5000.4, "Contract Management." The memorandum should specifically instruct the contract administration offices to:

(1) Screen contracts for required value engineering clauses, notify contracting officers when contracts are received without required clauses, and encourage Defense contractors to participate in the DoD Value Engineering Program.

(2) Report and monitor the results of value engineering efforts and effectively coordinate with Military Departments and Defense agency contracting officers and program managers to ensure the savings through value engineering are achieved whenever possible.

b. Provide the Military Department and DoD Value Engineering program managers statistical data on value engineering change proposals submitted, approved, savings realized, and processing cycle time for their use in ensuring the accuracy of information reported annually to the Office of Management and Budget.

**DLA COMMENTS:** Concur. We will:

1. Issue a memorandum emphasizing the importance of VE.
2. Review and revise, as appropriate, DLA Directive 5000.4, "Contract Management," Part VI, Chapter 13, "Value Engineering." Instruct field offices to adhere to the procedures.
3. Provide appropriate VE statistical data as recommended.

**DISPOSITION:** Ongoing. ECD: 20 Nov 96

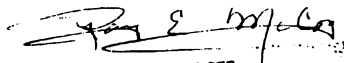
**ACTION OFFICER:** Aristides Maldonado, AQOF, 767-3355

**PSE APPROVAL:** Gary Thurber, Associate Director for Acquisition

**COORDINATION:** Dave Stumpf, DDAI

*JS, DDAI, 25 Aug 96*

**DLA APPROVAL:**



**RAY E. MCCOY**  
Major General, USA  
Principal Deputy Director

**AUDIT TITLE:** Defense Logistics Agency Value Engineering Program, 5CH-5038

**RECOMMENDATION B.2.:** We recommend that the Commander, Defense Personnel Support Center, instruct contracting officers to include value engineering clauses in contracts as required by Federal Acquisition Regulation 48.102, "Policies."

**DLA COMMENTS:** **Nonconcur.** The DPSC Contracting Policy Manual 4105.7 instructs contracting personnel to incorporate the VE Incentive Clause in contracts as required. The DPSC Clothing and Textiles VE Program Manager disseminated a reminder to all procurement personnel in the Clothing and Textiles Directorate.

\*

**DISPOSITION:** Action is Considered Complete.

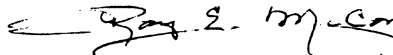
**ACTION OFFICER:** Mary Hart, MMLXE, 767-1637

**APPROVAL:** Marshall H. Bailey, Associate Executive Director, Policy, Systems & Engineering

**COORDINATION:** Dave Stumpf, DDAI, 767-6266

*JS, DDAI, 25 Aug 94*

**DLA Approval:**



**RAY E. MCCOY**  
Major General, USA  
Principal Deputy Director

## Defense Logistics Agency Comments

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DEFENSE LOGISTICS AGENCY  
DEFENSE PERSONNEL SUPPORT CENTER  
2800 SOUTH 20TH STREET  
PHILADELPHIA, PENNSYLVANIA 19145-5099



IN REPLY  
REFER TO

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FEB 22 1996

### MEMORANDUM FOR FO/TR/FN

SUBJECT: Promotion of Value Engineering (VE) Program

Subject promotion is a DoD reporting requirement. In order to satisfy this requirement for FY 96, we need to strengthen our promotional efforts. Towards that end, it is requested that the attached promotional letter accompany all awarded contracts \$25,000 or more that contain the VE Incentive clause in accordance with Revision 1 of DLAR 4105.1.

POC is Susan Caso, DPSC-FNV, x3274.

ROBERT L. WARD II  
COL USA  
Director, Clothing & Textiles

Attachment



DEFENSE LOGISTICS AGENCY  
DEFENSE PERSONNEL SUPPORT CENTER  
2800 SOUTH 20TH STREET  
PHILADELPHIA, PENNSYLVANIA 19145-5099



EPHY  
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FEB 22 1996

SUBJECT: Opportunity for Extra Profits through Value Engineering  
(VE)

NOTICE TO OUR VALUED SUPPLIERS

Dear Supplier:

The Value Engineering (VE) Incentive Clause is referenced in your contract. Why not take advantage of it? Many companies have already been rewarded with cash payments for their VE proposals.

Participation in the DLA Value Engineering Program entitles you to share equally with the Government in savings realized from an approved VE proposal. Your 50% share of the cost savings begins with the delivery of the first unit produced according to the VE change and continues for a period of three years. The sharing of savings applies not only to your instant contract, but also applies to concurrent and future contracts, regardless of who is awarded the future contracts.

Since you are working directly with the products DPSC buys, we feel you know best how to reduce their cost. If you have an idea as to how the unit cost of an item can be reduced without compromising its quality, reliability or performance, we want to hear from you. For more information on the details and requirements of the Clothing and Textiles Value Engineering Program, contact our Value Engineering Program Manager, Ms. Susan Caso on (215) 737-3274/5678.

Sincerely,

ROBERT L. WARD II  
COL. USA  
Director, Clothing & Textiles

## **Audit Team Members**

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector for Auditing, DoD.

Paul J. Granetto  
Garold E. Stephenson  
John M. Gregor  
Hoa H. Pham  
Robert S. Silverstein  
Keith A. Yancey  
Rhonda L. Ragsdale  
Robert M. Sacks  
Marie P. Berning



**INSPECTOR GENERAL**  
**DEPARTMENT OF DEFENSE**  
**400 ARMY NAVY DRIVE**  
**ARLINGTON, VIRGINIA 22202-2884**



October 9, 1996

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION  
AND TECHNOLOGY  
DIRECTOR, DEFENSE LOGISTICS AGENCY**

**SUBJECT: Audit Report on the Defense Logistics Agency Value Engineering Program  
(Report No. 97-003)**

We are providing this report for review and comment. Defense Logistics Agency comments on a draft of this report were considered in preparing the final report. The audit was requested by the Office of the Under Secretary of Defense for Acquisition and Technology in response to Office of Management and Budget requirements. The Army and Air Force Audit Agencies and the Inspector General, DoD, plan to issue a series of audit reports on the value engineering programs of various DoD components.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. The Under Secretary of Defense for Acquisition and Technology did not provide comments on a draft of this report. Therefore, we request that the Under Secretary of Defense for Acquisition and Technology provide comments on Recommendation A.1. and that the Defense Logistics Agency provide additional comments on Recommendations A.2. and B.2. by December 9, 1996.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Mr. Garold E. Stephenson, Audit Program Director, at (703) 604-9332 (DSN 664-9332) or Mr. John M. Gregor, Audit Project Manager, at (703) 604-9515 (DSN 664-9515). Appendix F lists the distribution of this report. The audit team members are listed inside the back cover.

Robert J. Lieberman  
Assistant Inspector General  
for Auditing



